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## **SOCIO ECONOMIC COMPARISON OF STUDENTS STUDYING IN PRIVATE, ORDINARY PUBLIC AND DAANISH SCHOOL SYSTEM**

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### **ABSTRACT**

*Education is a significant element which plays important role in human progress. It creates a productive and educated community and generates opportunities for the economically and socially deprived sectors of society. In Pakistan, there are extraordinary private schools along with the incredible government sponsored schools, helping the parents to choose the best institute for their children. The Government has established Danish school's system in Pakistan, to provide the quality education to the deprived sector and to fulfil their dreams to access the modern facilities. The major goal of this study was to find out the household's choice and quality of education regarding public as well as private schools especially Danish school system in Pakistan. Data collected from two cities, Chistian and Hasilpur. The simple linear regression technique was used for check the quality of education while the other hand binary regression technique was used for check the household choice regarding schools. The study explored that study hours, number of class tests, mother education level, gender, types of schools and family type had significant impact on child test scores and also all were statistically significant and household income was positively related with child test scores but it was insignificant according to the results of ordinary least square technique. According to binary regression technique mother education level, school fees, test scores and family income were statistically significant while the other hand gender and teacher's qualification were insignificant. Government should provide the basic facilities in ordinary public schools, training gives to teachers at monthly basis and syllabus should be designed according to modern needs.*

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## **KEYWORDS**

*School choice, private school, Ordinary public school, Daanish school system, cost of schooling, Quality of education, Pakistan.*

## **1. INTRODUCTION**

Education plays very important role regarding growth of any society. It reflects the main pillar of a community (Adams, 1998). High literacy rate certifies viable economic growth, labour productivity and economic success. Equalization of learning levels removes gender discrimination and regional inequalities. It also supports to meet the developing challenges of the present world through advancement of the academic level and acceptance of the new skills. It is essential for under developed countries, where bulk of the world's population present. The basic need is to reshape the educational programs in line with the progressive nations for increasing productivity through highly trained manpower. Due to globalization, economic life more demanding and competitive, creating human capability improvement and more significant. Only educated persons armed with contemporary skills can participate and getting benefits from exploited opportunities due to globalization (Kazmi, 2005).

Education is one of the essential elements of progress. No country can attain viable economic growth without significant investment in human capital. Education play important role in obtaining social and economic development and removing income inequality. It is a significant for achieving economic proficiency and social stability. It helps to raise the poor from poverty due to increasing labour value in other words education promotes the inclusive productivity and academic flexibility of labours (Ozturk, 2001). Without education spending in human capital have low impact on development of a country. Furthermore, Greater use of skills and education makes markets competitive and more effective. It is a conventional truth that in the world only those countries have made growth and progress which have a comprehensive education system (Ball, 1990).

Education is one of the most important variables of growth, composition, country output and exports for the country. At micro level, different studies indicated that intensifications in income belong with the additional years of education and rate of return fluctuating with the level of education (Behrman 1990). Education level and skills of employees and capitalists were significantly linked to the rate of the technical change of the firm (Deraniyagala, 2001).

### **1.1. World Situation**

The portion of educated individuals has gradually increased over the past decades in Europe. Most of the European countries are committed to enhance the proportion of 30 to 40-year-old in Europe having accomplished basic education to 40 percent in 2020. (Gaina *et al.*, 2015).

National spending's on education from 2004 to 2008 in 27 European Union countries and Turkey demonstrations range from 2.82 percent to 8.43 percent of GDP. Evidence shows that in European Union countries educational spending's from Government in 2008 was 3.15 percent of its total GDP and which considered as low educational spending from government side as compared to previous spending's that occurred in 2004 and that was 3.87 percent of its GDP. Denmark spends 8.43 percent of its GDP on educational activities and this was high spending's as compared to other countries. But Denmark educational expenditure declines little in 2007 and that was 7.75 percent of

its GDP. Private spending's in European Union countries between 2004 to 2008 lies between 0.08 percent and 1.75 percent of GDP. The countries with lowest educational expenditures on private sector included Finland which spends 0.14 percent of its GDP as well as Sweden which spends 0.18 percent of GDP in the year 2007 as compare to Cyprus which spends 1.35 percent in the year 2008. Similarly, Netherlands allocated 0.90 percent of GDP (Lung *et al.*, 2012).

In Bangladesh government spending on education was around 2.2 percent of GDP in 1990. In 2011 beyond 6 million girls appeared in secondary schools. The new country of South Sudan is edifice an integrated education system and provides a chance for those children who never attended school. Due to high primary enrolments demand for secondary education start growing, because primary enrolments were doubled in 2005 to 2009. The dropout rate was high about 60 percent in the first 6 years of primary school. South Sudan needs to generate more schools in rural areas, more classrooms and learning materials and more trained teachers (World Bank, 2013).

Furthermore, Thailand was never populated like a Western countries, in the early 20<sup>th</sup> century the Government of Thailand was deliberate to enlarge access to education and majority of the inhabitants were illiterate (Feeny and saimwalla, 1998). In 1920 Thailand was adopted Universal primary education and in 1932 revolution occurred in the nation and little progress was made in the rural areas (Phongpaichit and Baker, 2002).

## 1.2. Education System in Pakistan

Several changes occurred in the educational system of Pakistan in the past two decades. Overall enrolment level and net primary enrolment rate for children who are 5 to 9 years old has been increased by 42 percent in 1999 and 57 percent in 2009. In other words, that was roundabout 15 percent changes occurred over a decade. Gender parity index for enrolments has also been changed from 0.68 to 0.84 in 2001 to 2009. Enrolments in primary schools were decreased from 75 percent to 70 percent in 2001 to 2009. The modifications in the education sector of Pakistan generate an environment with various challenges as well as opportunities in terms of policy improvement (Amjad, 2012).

Furthermore, to many under developed countries, Pakistan has not made improvement sufficiently in the education department. Only 58 percent literacy rate exists in Pakistan and 42 percent of its residents are illiterate. According to Millennium development goals Acceleration Framework from (2013 to 2016) is designed to generate progress in education associated goals by professional training and Ministry of Federal Education for 2015-16. The national plane also expects to enrol an additional 2.7 million girls and 2.4 million boys (5.1 million) by 2015-2016. Similarly, by Pakistan Education for All (EFA) there is a huge stock of 6.7 million out of school enrolments from which 55 percent are girls and have posed a main hindrance in attaining EFA goal (GoP, 2015). Pakistan devotes only 2 percent on education of its GNP (GoP 2009). Overall 6.7 million children are not attending schools from which 62 percent are girls (EFA, 2014).

A public-sector school system provides largest service in Pakistan. It covers primary to Public sector schools provide education free of cost but on the other hand quality of education is not good in public sector because of shortage and absence of teachers, lack of physical infrastructure, non-availability of learning materials and old teaching methods. Due to these negative experiences of public sector school's parents have started to shift their children from public to private schools (Barber 2011).

Primary education system was badly ignored in the country. Instead of progress of the country on the basis of quality and free education, the system was appropriated by fiends of development and democracy (Zafar, 2003). Low cost private schools are also increasing day by day in Pakistan. In 2005 81,108 private institutions were situated in Pakistan from which 48,541 in Punjab, 11,276 in NWFP, 12,574 in Sindh, 640 in FATA, 2711 in AJK, 2861 in FANA and 1750 in Balochistan (Shami and Hussain 2007).

Danish School System, a plan of the Punjab Govt initially intended for the poor's, moreover provide to the flourishing sector of the community. Such as the Punjab Danish Schools and Cores of Brilliance Authority Act (2010), ten percent seats are reserved for those students who are capable of paying school fee and other school expenses. The government of Punjab has decided to inauguration of Daanish School System for poor people where below Food Support Program (FSP) would be provided all accommodations free of cost to children of those families who are registered. (GOP, 2011). Present study will try to check the household choice and the quality of education between public sector schools and private schools and most specifically Danish school system in Pakistan. The specific objectives of study are;

- To determine the socio-economic characteristics of students and their parents
- To compare the quality of education in various schools
- To compare expenditures (Economic Comparison) between Danish school and other schools (private or ordinary public)

## 2. LITERATURE REVIEW

There are a various study concentrating on the decision of household regarding children schooling and also made comparisons among public, private and semi government schools.

Hamdani (1977) explored education and the income differential in Rawalpindi. Unit of observation is Pakistan. Study used primary data collected through household's survey and from Pakistan institute of development economics (PIDE) in 1975. Education level, social cost, income, age and non-educational factors were used as variables in the study. Simple regression analysis used for econometric analysis. Study examined that wide income differential exists between individuals of altered educational level and income differential exists in developing countries as compare to developed countries. Study also explained that highest return come from primary education and private return are greater than social returns.

The quality differences between public and private schools in developing countries have been probed by Cox and Jimenez (1990). Study explored that student's performance was better and had greater advantage in private schools as compared to public schools. Shortly study concluded that private schools are better than public schools and students of private schools had positive impact on educational achievements and private non-religious schools are better than other schools. Study argued that there was a need to establish more private sector schools in education department by Horowitz and Spector (2005), Coulson (2009), Bedi and Garg (2000), Nguyen and Raju (2014).

Dickson *et al.*, (2015) examined the comparison of classrooms activities between public and private sector schools in Abu- Dhabi. Class size, training opportunities, resources and science classrooms activities were variables that study used for data collection. Private school's teachers

are more collaborative with their students as compared to public schools' teachers. Study also showed that low level of English used in public schools.

Amjad and Macleod (2014) explored the effectiveness of public, private and private-public partnership sectors schools in Pakistan. Objective of Study was to find the performance of students, quality of education and cost of schools among public, private and public-private partnership schools. Study used primary data based on surveys of schools and households in 2011 from Annual status of education report (ASER) 2012. Study showed that students of private schools were better performed than students of government schools. Private-public partnership schools' students also better than government schools but equally performed to private schools' students. Higher fee private schools' students are better than low fee schools.

Sawada and Lokshine (1999) examined the school decision in the rural areas in case of Pakistan. The main objective of a study was to find the sequential and dynamic decision regarding school enrolment in the rural areas of Pakistan. Survey based data used in the study and data was collected in two rounds, first round was started from February to April (1997) and the second round for data collection was started from December (1997) to January (1998). Study explored that older sisters bear more burden as compared to younger while on the other hand older brothers increased the schooling probabilities and due to high schooling cost, poor supply of primary female schools effected the female education. Study suggested that due to increasing supply of primary schools for females in rural areas and provision of low cost education, enhanced the economic development.

Public infrastructure plays important role on the existence of private schools in a society integrated by Pal (2010). The main objectives of study were to find the factors of private schooling and also find the demand for private schools in villages. Study used cross-sectional data from Public report basic education (PROBE) survey data collected from September to December 1996. For statistical analysis Study used probit model and explored that poor infrastructure of public schools was the reason of increasing demand and existence of private schools. Public sector ignores the management of schools and pays less attention toward parents, teachers meeting and lack of awareness. Study suggested that policy makers should focus on the improvements in public sectors schools Bhatta and Badathoki (2013).

Study revealed that better education improved the productivity and efficiency of labour force and also had impact on economic development only in long-run while the other hand education had no significant impact on economic growth in short-run Kakar *et al.* (2011), Reza and valeecha (2012).

Jerrard (2016) found the quality of education in low income countries, school benefits and stakeholder's perspective in rural areas of Sindh in Pakistan. Study focused on four communities such as Mirpur khas, Badin, Sanghar and Tando Allahyar for data collection. Study explored that unsatisfactory educational achievements were experienced in under developed countries. Study identified that there should be need to employ local teachers, address teacher motivation, teachers' trainings and developed private schools for achieving the goal of education for all.

### **3. DATA AND METHODOLOGY**

The major objectives of a study were to find out the indicators those contribute to quality of students and examined the socio-economic characteristics of students and their parents. However, the present study was conducted in the two cities i.e., Chistian and Hasilpur of district Bhawalnagar

and Bahawalpur. The area was selected because the quality of education is not much higher in this area. The respondents were selected from private schools, ordinary public schools and Daanish schools of Chistian and Hasilpur. Convenient sampling technique is used for selection of respondents. Total sample size of the study is 210. Seventy respondents were selected from private schools and seventy respondents were selected from ordinary public schools and seventy respondents were selected from Daanish schools. Data was collected through well-structured questionnaire. After checking the questionnaires data were entered into data analysing software Statistical Package for Social Sciences (SPSS) and Microsoft Excel.

Ordinary least square regression is applied to identify the quality of education among different schools such as Daanish schools, private and ordinary public schools. Test scores are used as a proxy for quality of education. It is a continuous variable. In this model other variables such as study hours, number of class test taken, mother education level, household income, gender, type of schools, family type is also included.

The general form of the regression model is as under

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \dots + \beta_n X_n \quad (1)$$

This study estimates the Regression model with the following variables:

$$Y = \alpha + \beta_1 (S.H) + \beta_2 (N.C.T) + \beta_3 (M.E.L) + \beta_4 (H.I) + \beta_5 (G) + \beta_6 (T.O.S) + \beta_7 (F.T) + \epsilon \quad (2)$$

Study employed the following OLS model:

$$T.S = f(S.H + N.C.T + M.E.L + H.I + G + T.O.S + F.T) \quad (3)$$

Table 1. Definitions of Variables Used in OLS Estimation

Dependent Variable	Definitions
(T.S ) Test Scores of the students	Achieving test scores of every student
Descriptive Variable	Definitions
S.H (Study hours)	Study hours per day
N.C.T (Number of class tests)	Number of class tests per month
M.E.L (Mother education level)	Mother's completed year of education
H.I (Household income)	Household per capita income in rupees
G (Child's Gender)	1 if child is male, 0 otherwise
T.O.S (Types of school)	1 if child goes to Daanish school, 0 otherwise
F.T (Family type)	1 if child belongs to nuclear family, 0 otherwise

Study used another model for finding household choice between Daanish school system and other schools. Household choice is considered as a dependent variable in this model. Household choice is used as a proxy of quality education. The decision of the household to send the child to Daanish or other schools (private and ordinary public schools) is estimated by logit model. This variable is binary in nature and researcher assign 0 for other schools and 1 for Daanish schools. Following studies were also used logit model for examined the household choice regarding different schools such as Epplé *et al.*, 2004 and Khan and Raza 2011.

The general form of the logistic model is as under

$$\text{Logit } [P_D / P_o] = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \dots + \beta_n X_n \quad (4)$$

In this equation  $P_D$  is the probability of choosing Daanish schools system and  $p_o$  is the probability of choosing other schools (private and ordinary public) while  $P_D / P_o$  measures the odd ratio.

This second model of study employed logistic regression model by using following variables:

$$H.C = f(T.S, S.F, M.E.L, T.Q, F.I, G) \quad (5)$$

Table 2. Definitions of Variables Used in Logit Model

Dependent Variable	Definitions
H.C ( Household choice)	Achieving test scores of every student
Descriptive Variable	Definitions
T.S (Test scores of students)	Study hours per day
S.F (School fees)	Number of class tests per month
M.E.L (Mother education level)	Mother's completed year of education
T.Q (Teachers qualification)	Household per capita income in rupees
F.I (Family income)	1 if child is male, 0 otherwise
G (Child's Gender)	1 if child goes to Daanish school, 0 otherwise

#### 4. RESULTS

Table 3 presented the theoretical framework of Households characteristics who study in Ordinary public schools, private schools and Daanish school system.

Table 3. Key Statistics of Households (In Percent)

Variables	Ordinary Public Schools	Private Schools	Daanish Schools
Students completed matric at 15 years of age	30.1	18.6	32.9
Illiterate Mother's	20.0	11.4	70.0
Illiterate Father's	20.0	5.7	41.4
Income below 10000	14.3	8.5	81.5
Non- Cemented House	1.4	0.0	18.6

Source: primary data

Table 4 summarize the school characteristics and also compare and define the students satisfaction level, teachers qualification, Standard of education, Inspection system and cleanliness of classrooms and washrooms on daily basis among ordinary public schools, private schools and Daanish schools system.

Table 4. Key Statistics of Schools (In Percent)

Variables	Ordinary Public Schools	Private Schools	Daanish Schools
Student's satisfaction	87.1	84.3	100.0

Schools who provide computer education	52.9	61.4	97.1
Teachers with 18 year education	21.4	8.6	18.6
Cleanliness of Schools	38.6	78.6	100.0

Source: primary data

Table 5 defines the results of ordinary least square regression and the results of OLS consistent with the theoretical findings of quality of education among ordinary public, private and Daanish school systems. Equation 1 is the equation of ordinary least square regression. The betas are the coefficients of the linear regression while S.H, N.C.S, M.E.L, H.I, G, T.O.S and F.T are the explanatory variables. Test scores is the dependent variable. Among the variables of equation 1 gender, types of schools and family type are the binary variables having values of 1 and 0 on the other hand all the other variables study hours, number of class test, mother education level, household income are the continuous variables and measured in to their units. Our result shows there is a statistically positive and significant relation between student test scores and the number of instructional minutes in the study and the academic year (Jez and Wassmer, 2011). Similarly, extended time of learning increases the academic performance of the student. Some previous studies expect a significant relationship between greater standardized test scores and additional hours in the classroom, the academic evidence from practical research on this matter is comparatively thin. After school, voluntary programs are normally cited as confirmation that prolonging the learning time increases applicants' academic performance (Farbman and Kaplan, 2005). The optimal amount of testing for a class also became a significant impact on the children test scores in final exams. Testing promoters claimed that everyday testing would increase efficiency of student and would encourage students to review and study more often. With higher numbers of class tests normally related with greater knowledge. Frequent classroom testing has a great benefit to the children (Jones, 1923). Mother education variable has significant and positive coefficient in all schooling level. This assessment of results represents the important complementarity between the child schooling and the education level of parents. By educated mothers there is a significant incentive to the educating children and provides superior home teaching environment (Schultz 1964). Mother's years of schooling are an essential factor of the child test score. This is reliable with two latest studies (Ferreira and Veloso, 2006).

Table 5. OLS Model Results

Variables	Coefficients	Significance
Study hours	31.6	0.000***
No of class test	5.45	0.000***
Mother education level	3.46	0.091*
Household income	0.698	0.222 <sup>NS</sup>
Gender	64.9	0.001***
Types of Schools	104.4	0.004***
Family type	33.3	0.063*

\*, \*\*, \*\*\* Significant at 10, 5 and 1 percent respectively

The variable household income plays an important role in the student achievements. There is a significant relation between household income and students test scores. Children from poor



families do less well in exams than the rest of society (Gregg and Machin, 2000). Furthermore, transitory income instabilities have an influence on child educational results (Mayer, 1997). Test scores may be affected by the gender of student as it is concerned with investment on child. Results show that male students obtain higher marks than female students. The result is supported by (Thapa, 2013). Study shows the students who study in Daanish school systems are more efficient than those students who study in other private and ordinary public schools. Family size or type also affects the test scores of the students. The students who belong to nuclear family (small family size) obtain higher marks than those students who belong to joint family system (large family size). Family size is also having an Impact on children test scores. Children from larger families attain low test scores as compared to those children who belong to small families (Becker, 1960).

Logistic regression is applied to identify the choice among different schools such as Daanish schools, private and ordinary public schools. Parental education is an important aspect in education and school choice specifically in under developed countries. Educated women prefer to send their children in private sector schools due to the facilities and quality of education which are not provided in public sector schools. In case of Daanish School, they also consider it as public sector school and they have same perception about this school. Similarly, School fees also affect the parental school choice. In previous studies study found that Schooling choice of households are sensitive to cost of schooling (Alderman et al., 2001). Parents choose that school in which fewer fees charged from students. Mostly middle class families normally choose that school in which fewer fees charged. The choice of the parents for Daanish and other schools may be affected by the gender of child. The results that are presented in table 6 show that boys are more likely to go to Daanish schools as compared to girls because parents are not willing to send their daughters to boarding schools normally.

Table 6. Logit Model Results

Variables	Coefficients	Significance
Mother education level	-0.248	0.006***
School fee	-0.200	0.000***
Student gender	1.259	0.146 <sup>NS</sup>
Test scores	0.009	0.003***
Teacher's qualification	0.822	0.013***
Family income	0.000	0.056**

\*, \*\*, \*\*\* Significant at 10, 5 and 1 percent respectively

Result also shows that the variable test scores have significant impact on household choice regarding schools. Test scores are more intensely associated to student and parental choice of school quality than to school admissions decisions. School choice will most efficiently increase academic attainment for deprived students when parents easily obtain information regarding test scores of the schools and have good options from which school they choose for children (Hastings and Weinstein, 2007). The choice of parents for Daanish schools or for other Private and Ordinary public schools is also affected by teacher's qualification. There is a positive relation between highly qualified teachers and school choice. Finally, Family income has also impact on schooling choice. Study found a significant association between family income and choice of Daanish schools.

## 5. CONCLUSIONS AND POLICY IMPLICATIONS

Education is an essential part of economic growth which is necessary for the person in order to compete in society to avail its targets and goals. Education has positive effect on economic growth and it also helps to improve technology and productivity of labour force which in turn helps to increase the national income as well as it leads towards better living standard of people. Present study investigates the quality of education and household choice regarding Daanish versus other school's systems. The results of the ordinary least square regression revealed that with the increasing number of study hours, test scores of the student will also increase. In other words quality of student will enhance. Number of class test significantly increases the students test scores. A positive relationship was found between test scores of student and number of class tests. Mother's education level also has a positive impact on tests scores of students. According to the results there was a positive relationship between family incomes and test scores of the students. Test scores of the students may be affected by the gender of the students. Study indicated that test scores of the male students were higher as compared to female students. Schools also have significant impact on student's test scores. According to study the students who attend Daanish schools are more efficient than those who attend non Daanish schools. In same way Family size also affects the students test scores. There was a positive relationship between small family size and test scores of the students. Similarly, the results of logistic regression reveal that there was a positive relationship between test scores and choosing the Daanish school system. As test scores of the student was increasing household choice regarding Daanish School also increasing. Cost of school (school fees) was an important indicator of the school choice. Result shows that there was a negative relationship between school fees and choice of schools. Mother education level also an important variable in school choice. If one year increases in the mother education level, then the probability of choosing Daanish schools from non-Daanish schools are decreases Furthermore parents are not willing to send females to boarding schools. Teacher's qualification and family income also positively correlated with school choice. Government should need to enhance the public-sector schools and hire experienced and trained faculty members.

- Parents must admit their children in schools in early ages and their children must complete matric level education in the age of 16 year similarly they must motivate their children that they study hard and at least provide 4 to 5 hours to their study and encourage their children to take proper breakfast that will create positive impact on student's physical and mental health which leads to better results in their study.
- There is need to focus on girls' education because if government focus on girls education they will ultimately better grown up their children in future.
- There is need to appoint qualified teachers in order to generate quality education among children which ultimately effect student grade positively and teachers must provide proper reading material, conduct class tests on daily basis and keep their attitude positive and cooperative towards students to create positive impact on the grade of students.
- Government should make proper legislation on highly charged fees by private sector to make education affordable to each and every class of people.

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- It is suggested that modern technique must be used for teaching and refresh courses must be arranged for teachers and give training them on monthly basis.
  - There is need to provide a better physical infrastructure and elementary facilities in schools like seating arrangement, electricity, toilet facilities, clean drinking water etc.
  - Many areas in Chistian and Hasilpur high schools are far away from rural area that's why parents may prove prohibitive to send their children to schools, specifically girls. So, government should construct schools in rural areas.
  - In public sectors schools test evaluation system, must be improved and government should check the evaluation system through perfect inspection systems and teams on regular basis.
  - Government should provide the scholarships to the bright students for their encouragement and establishments in future life

## REFERENCES

1. Adams, T. L. (1998). Prospective elementary teachers' mathematics subject matter knowledge: The real number system. *Action in Teacher Education*, 20(2): 35-48.
2. Amjad, R. (2012). A comparative analysis of the role of the private sector as education providers in improving issues of access and quality. Development policy research center, Lahore, Pakistan.
3. Amjad, R. and MacLeod, G. (2014). Academic effectiveness of private, public and private–public partnership schools in Pakistan. *International Journal of Educational Development*, 37(1): 22-31.
4. Alderman, H., Orazem, P. F and Paterno, E. M. (2001). School quality, school cost, and the public/private school choices of low-income households in Pakistan. *Journal of Human Resources*, 36(1): 304-326.
5. Ball, D.L. (1990). Prospective elementary and secondary teachers' understanding of division. *Journal for research in mathematics education*, 21(1): 132-144.
6. Barber, M. (2011). Education Reform In Pakistan: This Time It's Going to Be Different. Online Available at: [www.pakistaneducationtaskforce.com/erp.pdf](http://www.pakistaneducationtaskforce.com/erp.pdf).
7. Becker, G. S. (1960). *An Economic Analysis of Fertility, Demographic and Economic Change in Developed Countries*. Princeton, N.J.Princeton University Press.
8. Bedi, A. S. and Garg, A. (2000). The effectiveness of private versus public schools: The case of Indonesia. *Journal of Development Economics*, 61(2): 463-494.
9. Behrman, J.R. (1990). *Human Resource Led Development? Review of Issues and Evidence*. Asian regional team for employment promotion Eng., New Delhi, India.
10. Bhatta, P and Badathoki, S. B. (2013). Understanding private educationscape(s) in Nepal. Privatization in Education Research Initiative. ESP Working Paper Series, 57, Nepal.
11. Coulson, A. J. (2009). Comparing public, private and market schools: The international evidence. *Journal of School Choice*, 3(1): 31-54.

12. Cox, D. and Jimenez, E. (1990). The relative effectiveness of private and public schools: Evidence from two developing countries. *Journal of Development Economics*. 34(1): 99-121.
13. Deraniyagala, S. (2001). The impact of technology accumulation on technical efficiency: An analysis of the Sri Lankan clothing and agricultural machinery industries. *Oxford Development Studies*, 29(1): 101-114.
14. Dickson, M., Kadbey, H and McMinn, M. (2015). Comparing Reported Classroom Practice in Public and Private Schools in the United Arab Emirates. *Procedia-Social and Behavioral Sciences*, 186(1): 209-215.
15. EFA. (2014). Ministry of Education, Trainings and Standards in Higher Education Academy of Educational Planning and Management Islamabad, Pakistan.
16. Epple, D., Figlio, D and Romano, R. (2004). Competition between private and public schools: Testing stratification and pricing predictions. *Journal of public Economics*, 88(7): 1215-1245.
17. Farbman, D. and Kaplan, C. (2005). Time for a Change: The Promise of Extended-Time Schools for Promoting Student Achievement. Retrieved from [http://www.mass2020.org/files/file/Time-for-a-change \(1\).pdf](http://www.mass2020.org/files/file/Time-for-a-change%20(1).pdf).
18. Feeny, D. and Siamwalla, A. (1998). Thailand versus Japan: why was Japan first. In *The institutional foundations of East Asian economic development*, International Economics Association series, Palgrave Macmillan UK.
19. Ferreira, S. G. and Veloso, F. A. (2006). Intergenerational mobility of wages in Brazil. *Brazilian Review of Econometrics*. 26(2), 181–212.
20. Gaina, D. C., Elia, L. and Weber, A. (2015). A fast-forward looks at tertiary education attainment in Europe 2020. *Journal of Policy Modeling*, 37(5): 804-819.
21. GoP. (2009). Educational Policy. Ministry of Education Islamabad.
22. GoP. (2011). Danish School system project of Punjab government up-lifting of poor's Education. Online available at: [www.danishschool.edu.pk](http://www.danishschool.edu.pk). Accessed on 22-01-2016.
23. GoP. (2015). Government of Pakistan Economic Survey of Pakistan 2014-15. Economic Advisory Wing Ministry of Finance, Islamabad. Online available at: [www.finance.gov.pk/survey/chapters\\_15/10\\_Education.pdf](http://www.finance.gov.pk/survey/chapters_15/10_Education.pdf). Accessed on 22-01-2016.
24. Gregg, P. and Machin, S. (2000). The Relationship Between Childhood Experiences, Subsequent Educational Attainment and Adult Labour Market Performance, in Koen Vleminckx and Timothy Smeeding (eds.) *Child Well Being in Modern Nations: What do we Know?*, Policy Press.
25. Hamdani, K. A. (1977). Education and the income differential: An estimation for Rawalpindi city. *The Pakistan Development Review*. 16(2): 144-164.

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26. Hastings, J. S. and Weinstein, J. M. (2007). Information, school choice, and academic achievement: Evidence from two experiments. Working paper, 13623, National Bureau of Economic Research.
  27. Horowitz, J. B. and Spector, L. (2005). Is there a difference between private and public education on college performance? *Economics of Education Review*, 24(2): 189-195.
  28. Jerrard, J. (2016). What does “quality” look like for post-2015 education provision in low-income countries? An exploration of stakeholders’ perspectives of school benefits in village LEAP schools, rural Sindh, Pakistan. *International Journal of Educational Development*, 46(1): 82-93.
  29. Jez, S. J. and Wassmer, R. W. (2011). The impact of learning time on academic achievement. *Education and Urban Society*. 47(3): 284-306.
  30. Jones, H. E. (1923). Experimental studies of college teaching: The effect of examination on permanence of learning. *Archives of Psychology*. 10(1): 1-70.
  31. Kakar, Z. K., Khilji, B. A and Jawad, M. (2011). Relationship between Education and Economic Growth in Pakistan: A time series analysis. *Journal of International Academic Research*, 11(1): 27-32.
  32. Khan, R. E. A. and Raza, M. (2011). Household choice of public versus private schooling: a case study of Bahawalpur City. *Middle-East Journal of Scientific Research*, 11(1): 94-99. Online Available at: <http://ssrn.com/abstract=1969320>.
  33. Kazmi, S. W. (2005). Role of education in globalization: A case for Pakistan. *SAARC Journal of human resource development*, 1(1): 90-107.
  34. Lung, M. L. Moldovan and Alexandra, N. L. (2012). Financing higher education in Europe: issues and challenges. *Procedia-Social and Behavioral Sciences*, 51(1): 938-942.
  35. Mayer, S. (1997). *What Money Can’t Buy: Family Income and Children’s Life Chances*, Harvard University Press.
  36. Nguyen, Q. and Raju, D. (2014). Private school participation in Pakistan. Working Paper, 6897,
  37. Ozturk, I. (2001). The role of education in economic development: a theoretical perspective, Mpra paper no, 9023, University Library of Munich, Germany. Online available at: <http://mpa.ub.uni-muenchen.de/9023>.
  38. Pal, S. (2010). Public infrastructure, location of private schools and primary school attainment in an emerging economy. *Economics of Education Review*, 29(5): 783-794.
  39. Phongpaichit, P. and Baker, C.J. (2002). *Thailand, economy and politics*. Kuala Lumpur: Oxford University Press, USA.
  40. Reza, A. and Valeecha, S. (2012). Impact of education on economic growth of Pakistan: Econometric analysis. *IOSR Journal of Business and Management*, 5(4): 20-27.
  41. Sawada, Y. and Lokshin, M. (1999). Household schooling decisions in rural Pakistan. Working Paper, 2541, World Bank Policy Research, World Bank, Tokyo, Japan.

42. Schultz, T. W. (1964). Economic Value of Education. Columbia University Press, New York.
43. Shami, P. A. and Hussain, S. K. (2007). Education in Pakistan. Academy of Educational Planning and Management, Ministry of Education, Islamabad.
44. Thapa, A. (2013). Does private school competition improve public school performance? The case of Nepal. International Journal of Educational Development, 33(4): 358-36.
45. World Bank. (2013). Learning for all. World Bank, Washington DC, USA. Online available at. [WWW.WORLDBANK.ORG/EDUCATION](http://WWW.WORLDBANK.ORG/EDUCATION)
46. Zafar, M. (2003). Fiscal devolution in education. Case study reflecting initial responses. Ministry of education, Islamabad, Pakistan.



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